ERRORS IN EATING AND PHYSICAL DEGENERATION By SIR W. E. COOPER C.I.E.

PRICE SIXPENCE NETT (Post Free)

THE ORDER OF THE GOLDEN AGE PAIGNTON, ENGLAND 1905

		ì	,	4		
•		•				
	•					
					s	

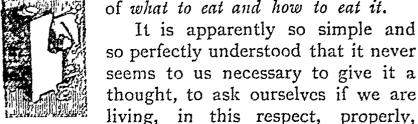


I.

## PREVALENT IGNORANCE OF HYGIENIC LAWS.

PERHAPS the most important question in relation to the conditions under which we

live is the apparently simple one of what to eat and how to eat it.



rationally, wisely. From youth to old age there is never a difficulty about food; there is plenty of it. Man has laid under contribution the animal and vegetable kingdoms for his culinary uses, and supplies of all kinds of eatables are abundant.

We are quite satisfied with the way we cook our food; our dishes are dainty, palatable, appetizing; indeed, our cuisine has been reduced to an art. We pay large salaries to capable and artistic chefs to tickle our palates for us; and it would be ridiculous to say we do not know how to live. We vie one with the other in giving nice little dinner-parties which are the envy of our friends, and the despair of our enemies; and so we are content.

We do give "what to eat and how to eat it" many a thought, and with many of us it is an abiding thought; in fact, with the vast majority of the more cultured ones of the earth, those favoured classes which constitute the upper grades of society, feeding is regarded as one of the most important functions of life. We take our five or six meals a day: the morning tea; breakfast; luncheon; afternoon tea; dinner; a bit of supper after the theatre; and frequently a few trifles thrown in between whiles; and it would be sheer nonsense to say we do not give our food a thought.

We rather flatter ourselves that we do know what to eat; and what is more, we eat plentifully and thoroughly enjoy it; and as we take infinite pains to see that our food is chosen according to our taste and cooked with skill. we are quite convinced that we are living well and even rationally.

These are the ideas that most of us have in regard to this vitally important question in the economy of life. They appear to us perfectly rational ideas and are the outcome of a considerable amount of attention given to the subject of feeding, and of study of the culinary arts.

That much study of the preparation and cooking of food is necessary to the well-being of the human race, there can be no question. The fundamental principle of cooking is to prepare food primarily in the most digestible form so that it may build up the body and supply it with all the force and energy that it requires; to prepare it in such a manner that none of its nutritive properties are lost. The secondary object is to prepare it in a way that will render it palatable. And indeed there is no reason why we should be indifferent about the flavour of our dishes. because daintily flavoured food is always more agreeable and not necessarily more harmful or indigestible than tasteless and insipid culinary productions.

But although it must be conceded that a great deal of time and consideration is given to the all-important food question, and an immense amount of money spent in making our cuisine as attractive and perfect as possible, it does not necessarily follow that our careful study of the subject results in dietetic wisdom, or that our money is well spent. On the contrary, there is ample evidence on every hand to prove that our study of culinary matters has resulted in the elaboration of a system of feeding so vast and complicated as to cause amazement and consternation to those who from hygienic reasons have not succumbed to the monstrous menus of the day.

The Temptations of the Table. If we take at random any one of the menus from any of the hotels of Europe, or, for that matter, any part of the civilized world; that it consists of seven to nine

we shall find that it consists of seven to nine courses, and it is the boast of many of us that we go "Nap" on the bill of fare, no matter how long it may be.

If we turn to the more numerous private establishments we find no change; our hostesses vie one with the other to render their dinner-parties charmingly attractive, and they succeed; dishes, dainties and delicacies abound, there is lavish profusion everywhere, in meats and in drinks; and the little social gathering becomes a luxurious feast where all are given up to those pleasures which found so able an exponent in Epicurus in the far-away centuries of the past.

The luxuries of the table, and the sensual enjoyment to be had from indulging in them, are among the greatest temptations of the age; they charm and fascinate us and excite our appetites; they seduce us with their attractiveness, and we entirely succumb to their irresistible allurements. Every man and woman likes a good dinner; young and old enjoy the pleasures of the table; and so, all through the conscious part of our lives, we indulge in the enjoyment of eating, and have a jolly good time of it, as the saying goes.

And our imprudences do not, alas! begin with youth. We must go further back to find a starting point; back to that period of sub-consciousness when we are not free agents; back to the beginning of life when anxious mothers are careful to see that baby is fed every two hours, night and day; fearful lest their precious one should "run down" and languish for want of nourishment; when poor helpless infants are plied so constantly with milk and other baby foods that their little stomachs rebel against the treatment, and frequently a large portion of the food that is so imprudently and cruelly thrust upon them is rejected.

It is clear that we partake too freely of the good things of this life long before we reach the period of adolescence. Civilized society likes its babies fat, and many of them are monstrously fat; baby that is healthily covered with a reasonable fount of adipose tissue does not appeal to us; hink an infant in this healthy natural conditis badly nourished, and we feed him up till acomes a baby that would take first prize in baby show. So, right away back to the subrious state of babyhood can we trace the it of overfeeding.

But every picture has two sides, and every se an effect. If we buy we must pay; and re transgress we must suffer. If we indulge years in the pleasures of excessive eating and And our imprudences do not, alas! begin with youth. We must go further back to find a starting point; back to that period of sub-consciousness when we are not free agents; back to the beginning of life when anxious mothers are careful to see that baby is fed every two hours, night and day; fearful lest their precious one should "run down" and languish for want of nourishment; when poor helpless infants are plied so constantly with milk and other baby foods that their little stomachs rebel against the treatment, and frequently a large portion of the food that is so imprudently and cruelly thrust upon them is rejected.

It is clear that we partake too freely of the good things of this life long before we reach the period of adolescence. Civilized society likes its babies fat, and many of them are monstrously fat; a baby that is healthily covered with a reasonable amount of adipose tissue does not appeal to us; we think an infant in this healthy natural condition is badly nourished, and we feed him up till he becomes a baby that would take first prize in any baby show. So, right away back to the subconscious state of babyhood can we trace the habit of overfeeding.

But every picture has two sides, and every cause an effect. If we buy we must pay; and if we transgress we must suffer. If we indulge for years in the pleasures of excessive eating and drinking, suffering in some form or shape will surely follow.



We may not violate Nature's laws with impunity, and an outraged stomach will in time turn and rend us. The great organs of the body whose functions have been seriously impeded and disorganized by our imprudence, will resent the interference and work un-

evenly and inharmoniously, with the result that we feel run down and "out of sorts" as we term it, and are sent to Harrogate or Homburg to get "washed out." The healthy mode of life which is more or less forced upon us at most watering places does good for the time being, and outraged Nature is for a while appeared.

But we soon return to our old courses, the habit of a life-time is strong within us; and it seems impossible to break away from a mode of living that is almost universal. Indeed, with most of us there is no attempt made to alter it; it is a pleasant enough life; we are fond of the good things which are so plentifully provided for our use, and content to go on as we are! But a time comes when the body can stand it no longer, and it breaks down under the stress; illness supervenes; serious illness this time; liver and kidneys are found to be diseased, and the heart weak and imperfect in its action. We are dosed and drugged ad nauseam; bodily disorders in many shapes and

forms assail us, and among them the numerous troubles arising out of an excess of uric acid induced by imprudent selection of food and overfeeding; and we are left broken down physical wrecks at an age when we should be in the full enjoyment of health and strength, of vigorous manhood and womanhood.

Diet in Relation to Longevity. One of the most interesting facts put before the world by modern science is that in respect to the natural age of the human race.

By comparing man with other animals in regard to bodily structure, period of maturity, and longevity, anatomists have discovered that the natural term of man's life should be about 120 years. That this is by no means an overestimate is testified to by the fact that centenarians are common enough to-day, and that they have been common enough throughout history. A couple of years ago a well-known lady died in Guernsey at the age of 116 years, and up to within a short time of her death she was in the full possession of physical and mental faculties. Instances of men and women dying at over a hundred years of age are frequently recorded in the newspapers, and there is hardly one among us who does not know of some very aged person whose years are nearer a hundred than the proverbial "three score and ten," which is supposed by many to be the full term of man's existence.

But in order to throw more light on the natural term of human life let us for a moment go back to early history; and as Biblical history is familiar to most people, we will take that for the sake of convenience.

In the 6th chapter of Genesis we find the following passages:—

And the Lord said, My spirit shall not always strive with man, for that he also is flesh; yet his days shall be an hundred and twenty years.

In the 34th chapter of Deuteronomy we find these words:—

And Moses was an hundred and twenty years old when he died.

And yet in the 90th Psalm, which was written about 1000 years later, the period of life is put at 70 years in the following lines:—

The years of our days are threescore and ten, and if by reason of strength they be fourscore years, yet is their strength labour and sorrow.

This Psalm was, according to the margin, written by Moses, and from it we may learn that although the promise of the Lord that man should live to "an hundred and twenty years" was fulfilled in the person of Moses himself, it had lost its application so far as the Jewish people were concerned. That Psalm of Moses was an earnest prayer to God on the iniquity and frailty of human life, and when the great

Jewish lawgiver wrote it he was fully conscious of the follies, weaknesses, indulgences and sins of the people for whom he was pleading; he was also fully aware of the fact that even at that day man scarcely ever exceeded the age of 70 years; and if he did so, his strength had departed from him: and, as Moses pathetically puts it, "yet is their strength labour and sorrow."

The central fact that stands out so significantly here is that Moses lived to the full term of human life and the people died early. The reason is evident: their lives were different. Moses lived a simple temperate life, free from those weaknesses and lusts which characterised the race to which he belonged; and the people did not. The wonderful code of laws for domestic hygiene, which Moses found it necessary to draw up; the minute instructions given as to the selection and preparation of food; the many appeals to the people to live clean wholesome lives and generally to observe temperance and moderation; all point to the fact that the mode of living which then obtained was by no means what it should have been, and that reform was necessary. The life of Moses was full of hard work, an energetic, strenuous, vigorous life; and yet, "when he died his eye was not dim, nor his natural force abated," as the simple yet stately language of the old Jewish historian puts it.

And so it is to-day. In many an octogenarian of modern times, and in some cases of centenarians we find the eye undimmed and the natural force unabated; and we never fail to admire and reverence these grand old specimens of the human family. But it seldom occurs to us to think that if we choose we too can do what they have done; we too can ensure unabated vigour far beyond the supposed allotted period of "threescore and ten," and preserve the full enjoyment of life even to a great age. What the few do all may accomplish; but-and there is a "but" here as there is in everything else in life—we must do as they have done, live as they have lived, and then we may hope to die as they have died, in the full maturity of years; mellow and ripe as the fruit which is perfect droppeth from the tree to Mother Earth and is laid at rest in her broad bosom.

Let us now consider what may have taken place between the time God made the promise that man's age should be 120 years, and that when Moses wrote his Psalm on the frailty of life and the shortness of it. We have seen that there were only a thousand years between the two periods, not an enormous lapse of time, yet long enough for man to wreck his constitution and shorten his life to a little over half the years allotted to him by his Maker. The people of those days were not famous for abstemiousness

and the purity of their lives; and their mode of living became a sore tribulation to their holv men. With such a people it may easily be understood that they were no more abstemious in regard to their eating and drinking than they were in respect to the other matters which went to make up the sum total of their lives, indeed the necessity for an elaborate codification of laws relating to the domestic customs of the people showed the existence of general ignorance in respect to the selection and preparation of food. They encompassed a short life and an old age at a period of human existence when men should be in full possession of physical and intellectual vigour. But this old age and premature decay, which had been brought about by the simple process of wrong living, had nothing beautiful or honourable in it, and Moses fully realized this when he referred to it with such infinite pathos in that beautiful Psalm of his.

There are among us, however, a number of people who would prefer to accept the records of modern writers on the subject, rather than the far-off story of man's ignorance of hygienic laws as told in the pages of the ancient pentateuch.

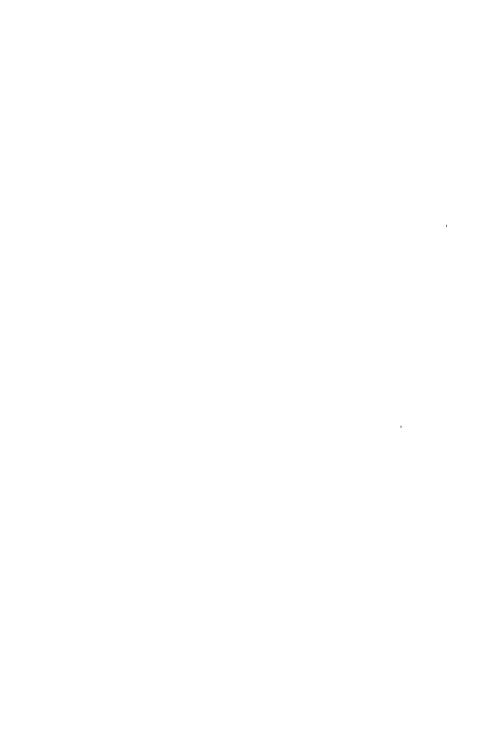
There is unfortunately abundant evidence on every hand that man to-day is living irrationally, unwisely, and in utter disregard, in many ways, of those laws which determine the issues of health, strength, and longevity, or frailty, disease, and early death. On this point, there has been no lack of testimony recently from the highest medical and scientific authorities, and we are told by such savants as Sir Henry Thompson, Flammarion, and others, that three score and ten years is altogether too low an estimate of what the duration of human life ought to be under wise and proper conditions. Sir James Crichton Browne in a recent address in London, said:

"Every man is entitled to a century of life, and every woman to a century and a little more, for women live longer than men. Every child should be brought up impressed with the obligation of living to 100, and taught to avoid the irregularities of living which tend to prevent the attainment of this ambition."

It is not too much to say therefore, that modern society may find its prototype in the ancient peoples of those far-away days.

Many things, truly, have been altered, and much progression made. In arts, manufactures, science, and general culture we have far surpassed the remote peoples of Biblical history, and modern civilization cannot find its parallel in the history of any nation; but in respect to those indulgences which our physical senses love so much and lust after, we have not progressed, and perhaps at no period of human

existence, excepting that of the gross licentiousness of imperial Rome, has Epicureanism been more universal than at the present day. In every civilized country of the world the old Greek philosopher may count his degenerate disciples by the million; and wherever we turn we find the well-to-do are giving themselves up to luxurious living.





II.

## SOME DISASTROUS RESULTS OF IGNORANCE.

ET us now take a short retrospect and see what the present style of living has done



for us; let us try and ascertain if the race is stronger, healthier, more robust and vigorous to-day than it was before the present high standard of feeding, together with the almost universal practice of meat-eating, came into fashion. It would be impossible in this short paper to go exhaustively

into the question of the degeneration of the human race or even of the British people, or to investigate the causation of disease, even of such diseases as are said to be more prevalent to-day than they were a generation or two ago. Such subjects would fill a larger volume than this is intended to be, and must, therefore, be left to other writers. But we may nevertheless take a glance round just to see if we can learn

constant that have been a to torm a few

let us be a stall inch sovery into two big

 The better classes who can afford to live well or even hauriously.

2. The working classes whose food is ignormally chasen and budly gooked.

In regard to the test of these, it may almost be sail that p lite everty is oftended if not fed on an eight-course mean. If what are called the cultured classes do not actually live to eat, live to surfeit thanselves with the good things of this life, will it cannot be fairly claimed for them that they are to live, that they partake of feod for the sole purpose of nourishing the body and laciping it strong, vigorous and wholesome. The evidence all points the other way.

Some
Significant
Signs.
The well-filled and ever-increasing ranks of the medical profession; the rapid and alarming development of private nursing institu-

tions; the array of sick nurses that are in evidence everywhere, the facilities afforded to us to enter private hospitals, the many establishments of various kinds in aid of the sick and suffering, and the vast number of surgical operations that are performed there each year, clearly indicate the necessity for helping those in need of medical and surgical treatment.

Apart from this, an enormous trade has of late years sprung up in patent medicines, while the tabloid-consuming crowd of semi-debilitated men and women that one meets with on every hand, at almost every dinner table and in every country, all point to a state of affairs that is most deplorable. Voluptuous license in eating and drinking is general; it is the mot d'ordre of polite society, and we are given over to the belief that pleasure is the chief end and object of our lives.

But we must pay for our indulgence: Nature will not permit her laws to be evaded without exacting a penalty. Everything in the universe is a question of cause and effect; it is a fixed immutable law and cannot be altered to suit our individual lives. The cause of our suffering is obvious enough to all those who care to observe, and we cannot therefore profess ignorance of its origin. As we sow, so must we reap! The effect is visible on every hand, and although we naturally shrink from recognizing so deplorable a fact, yet we must admit that there is hardly a sound man or woman among us.

Our maladies or our ailments form one of the pet subjects of conversation at our dinner-tables, we discuss them in our business and in our clubs and offices; riding, driving, or walking, they are ever with us, and it soothes and comforts us to talk them over with our friends.

We try one stomach pill after another, while tabloids and patent medical specialities of all kinds are as essential to our dressing-bags as are brushes and combs and the multitudinous paraphernalia that go to make up the contents of these useful articles. We use one nostrum after another, and are only too eager to impart to our acquaintances their effect in this particular ailment or that, and to recommend them to those who suffer from similar complaints.

The London "Liver Brigade" is to be seen every morning in the Parks trying by a little wholesome outdoor exercise to work off the evil effects of previous indulgence, and so this particular section of society goes on its self-appointed course to the bitter end. And the end is bitter, as we know full well! Disease and suffering on every hand, disease that is widespread and increasing; dyspepsia in its multifarious forms; tubercular disease in all its terrible shapes: paralysis; cancer; gout; eczema, and the scores of diseases referred to elsewhere, that go to make up the sum total of that deadly array of penalties that Nature exacts from us for the violation of her laws, are all ours; a few of them perhaps inherited but most of them contracted, alas! in our own lifetime.

We cannot plead ignorance because we know perfectly well what we are about, and those who indulge in the pleasures of the table do so from choice. We are in this, as in all things else, free agents. We indulge because it is pleasant to do so, and we must therefore accept the consequences.

Dietetic Errors of the Masses. But when we turn to the second great group of society—the working classes—we do not find much that is encouraging and hopeful

there. The errors of feeding among that section are as great, and the results as dire as among the cultured classes. The difference is that, whereas on the one hand polite society adopts from choice a system of living that ensures disastrous consequences, the working-classes err from ignorance. The results, however, are pretty much the same in both cases: deterioration of that national physique upon which the British race prided itself for so long and so justly, and a general decline in the health of the people. That robust vigour, muscular strength and general fitness which enabled us to go anywhere and do anything has departed from us to a great extent, and the physical standard of the race is lower than it used to be.

It is contended by some writers that the cry about national degeneration is all moonshine, and that, taken as a whole, the British race is as full of strength and vigour and health as it ever was. They claim that we still excel in all manly exercises, that the athletic feats

performed by different people in all parts of the country are simply "records," and that this could not be unless physical power and endurance had been fully maintained.

A healthy optimism is, individually speaking, one of the most perfect states we can cultivate; it enables us to live in harmony with all things existing, and it sheds a calm sweet content over our lives. It enables us to escape the thousand and one frets and worries that possess our neighbours, and to go on our way serenely through the turmoil and strife of the world. It is good to be an optimist because we avoid a sea of troubles; but don't let us overdo it; don't let optimism close our eyes to unpleasant facts, or lead us in a straight line ahead over the cliff when common sense tells us to turn a bit to the right or left. The clear eyes of Truth see farther than optimism, and we should do well to follow her gaze.

It is true that our athletes are making records every day, but does it follow because a man here and there trains himself to a high state of physical perfection that he must necessarily be a fair type of the national physique? Rome produced her magnificent array of gladiators when the people were sunk in debauchery and the manhood of the empire was sapped and weakened by licentious excess.

We certainly do go everywhere and do everything that Imperial necessity or policy

demands. The honour of the nation is gloriously maintained, and our soldiers are as good and brave as ever they were; but here again it does not follow that these facts, comforting and agreeable as they appear to be at first sight, necessarily prove that all is well with the people. The astonishing performances of a few athletes, the marvellous enterprise of a handful of Englishmen in some remote corner of Greater Britain; or the physical fitness of a couple of hundred thousand troops, cannot possibly be considered representative of the case in regard to the fifty millions or so of British people which are to be found in the Empire. If it were so it would indeed be consoling, but such a hope cannot be entertained.

There are certain unpleasant facts staring us in the face, and it is our plain duty to meet their gaze unflinchingly and calmly; to enter into a complete realization of what they really are, and then set about applying such remedial measures as are possible. Optimism here would be fatal!

In the first place let us try and realize that the comparatively few men who devote themselves to athletic pursuits, or who go out to the outlying portions of the Empire to uphold and maintain national interests and honour, should be regarded rather as specially selected specimens of the race than as ordinary types of the people. They are among the choicest fruits of the nation; the very

pick of the basket; and although it would be folly to say that these few choice specimens exhaust all that is good and vigorous, bold and enterprising in our national life, it would be equally foolish to suppose that they are fair types of the teeming millions of the population. They are neither one nor the other, and as they cannot be taken as a standard whereby to measure the nation, they should stand aside in the present consideration. We should, then, consider the nation as a whole and endeavour to form our conclusions by framing a just estimate of the masses, and the standard by which they should be measured.

The Decline in our National Physique. Complete statistics on the subject will not be forthcoming till a thorough investigation of the matter has been made by Government. There is, however, suffi-

cient evidence already to hand showing that there is grave cause for alarm. Let us take the Army as an example. We know that in spite of the care exercised in selecting the men, it has been found necessary of late years to reduce both the height and chest measurements owing to the difficulty in getting a sufficiency of men up to that standard which, but a few years ago, was considered to be but a fair standard measurement of the national physique.

It has been said that this is an isolated case, and further that it affords no criterion of the manhood of the nation because Army recruits are now chiefly drawn from the surplus population of manufacturing towns, whereas they formerly came from agricultural districts. This is perfectly true as far as it goes, but it should be borne in mind that although the agricultural districts remain, the population has disappeared; it has drifted, for one reason and another, to the big towns, and such agriculture as is left to the country is carried on by a few old men, eked out at harvest time by a precarious crowd of the unemployed from the very towns from which we draw our recruits. We have to go to the big towns for our soldiers, we look to the big towns even for a portion of our agricultural labour; the vast bulk of the population is centred in them. and it is there we must look to find a fair standard of national measurement. The Army then may fairly be taken as an illustrative example.

Another concrete example may be found in our school-children. Only a few months ago one of the Government Inspectors, in connection with the question of the "Degeneration of National Physique," reported on over 4,000 school-children in certain of our big towns; and found that in comparison with Jewish children of identical social position, our English boys and girls were, age for age, in height and chest measurement, considerably below the Jewish children. This in itself is sufficiently discouraging, but the most

alarming feature of the case is the Inspector's further report that whereas the Jewish children were practically free from teeth troubles, it was found that over sixty per cent, of the English children were suffering from decayed teeth. Here we have a significant factor denoting degeneration; and if the fact that English children cannot bear comparison with children of an alien race in point of view of physical robustness and general health, does not arrest our attention, then it is to be feared that nothing will!

We will now take a general glance round and see if we find anything in the appearance of the masses, as they pass by us in the great centres of population, to refute the belief that we are not what we used to be. Do we find that alert virility, that breezy briskness and healthy appearance and tone which denote physical vigour and energy; or do we find a crowd of under-sized, narrow chested, pallid men and women who pass on their way with that listless air which denotes want of animation and physical vitality?

Do we find well-developed, comely, ruddy, white-teethed men, women and children, specimens of humanity that offer ample guarantees for the maintenance of the national vigour and hardihood, or do we find unmistakable marks of decay on the forms of those who troop past us in the streets of our big towns, specimens of a race that has lost its strength, and that will lose

its recuperative power unless steps be taken to arrest the decline? It may be hard to admit that the latter view is correct, but it seems as though there is no help for it at the present moment. We cannot escape the fact that the physical state of the working-classes is not what it should be; what it will be when the conditions governing human life are understood and applied to building up the body, instead of, as at present, pulling it down. But unfortunately these conditions are not understood to-day, and the masses are paying the penalty of ignorance.

It has, however, been contended, and with some reason, that the unhealthy appearance and poor physique of our manufacturing population is caused by the close, unwholesome atmosphere of the workshops in which they toil. Such a condition may partly account for it, but not altogether.

The British navvy, who is accounted as among the best specimens of our race, spends his life in the open air, but he is a broken down man at fifty. Examine any gang in any part of Great Britain, and rarely will a man be found of advanced age. Something breaks them down, but it is not the work.

We prided ourselves in former days on our navvies because of their bodily strength and fitness, and the enormous amount of work they got through; but that is past; trades-unionism has tainted the navvy with its principles, in common with other sections of British workers, and our belief in his prowess is dead. We have only to watch a gang of navvies at work to dispel the idea that he works harder than his fellows. Any man to day of fair physical strength may do navvy's work till old age, so far as the work itself gees; but he somehow falls out of the ranks at an early age and disappears.

Ignorance of 'what to eat and how The Root to eat it' is at the bottom of the of the Evil. evil, and unless we realize this we shall miss the way. Rationalism in all things is essential to the well-being of the human race, but as the well-being of the physical body depends upon its nutriment, it is obvious that rationalism in eating and drinking becomes absolutely essential. Deterioration of national vigour is going on, and the longer we ignore it the longer will the remedy be in coming. Extra wages, shorter hours of work, a higher standard of comfort in living, improved domestic hygiene, and better facilities for housing the poor, will hardly affect the question so long as we don't cut off the root of the evil. Here, as in all things else, it is a question of cause and effect.

The effect is visible enough throughout England; let us now consider the cause. It will be found in the food we eat, the kind of food selected, and the way it is cooked, and unless those who

are responsible for the due performance of the duties involved in this consideration can be made to realize their enormous importance, made to understand the incalculable harm that arises out of their sore neglect of this question, no help can come.

Taking the British housewife all round she is perhaps the worst cook in Europe. She has



been born and bred in ignorance of the culinary arts, and she learns little or nothing by experience. She has seen her mother roast and boil, bake and fry, and she accepts such methods of preparing food as the *ultima thule* of cookery.

Many of them cannot even roast, boil or bake in a manner to render the food tender and palatable; much of the meat is served up in a hard, tough, leathery condition, the vegetables are frequently under-cooked and served up in a watery, unappetising condition, the pastry is generally badly made, heavy and unwholesome, and all through life the family is fed on food that is unsuitable to the human stomach, that is extremely innutritious, and that is bound to result in the most disastrous effects on the digestion.

Then the good wife adds to the general discomfiture of the household by means of her tea kettle, in which she prepares a dose so poisonous as to ensure the destruction of the

fimily discistion. She timely believes in the efficiely of what one earls a "good strong cup of tea." She really thinks it is refreshing and invigorating, and she heeps the kettle or tea-pot on the hob the whole alternoon and well on into the night, stawing and simmering until she has brewed for herself, her family, and any friend who may chance to drop in for a chat and a nice "cup o' tea," a decoction of so deadly a nature as to ensure the most direful results.

She does not know, poor soul, that tea is astonishingly rich in xanthine and tannic acid, that the former of these is responsible for many of our uric acid troubles, while the latter is used by tanners for converting raw hides into leather. Nor does she know that in simmering her tea for hours she is taking the readiest means of extracting from it the maximum quantity of both of these poisons. She cannot understand that if tannic acid will convert animal matter such as the soft, gelatinous raw hides of beasts into hard tough leather, it will certainly exercise a similar effect on any animal food matter that it may find in the human stomach; that is to say, as the property of tannic acid is to preserve rather than to decompose, it would necessarily retard that rapid decomposition of food particles in the stomach which is physiologically essential, otherwise imperfect digestion and impaired heath are bound to follow.

It should be as clear as daylight, even to the meanest intelligence, that badly chosen and badly cooked food must necessarily be damaging to human digestion, and harmful to human health; but if we add to our discomfiture by taking in daily with our food a quantity of deadly poison that causes a number of terrible diseases apart and altogether distinct from those caused by badly cooked and improper food, we are simply encompassing the destruction of all that which makes life worth living.

What we have to do if we wish to live profitably, wisely and well, is to help ourselves, to be vigilant, resourceful, and observant; to profit by what we learn; in short, if we know that certain kinds of food are harmful, that badly cooked food is innutritious or indigestible, that our methods of preparing food are faulty and do not ensure the maximum nutrient value and satisfaction, then in the name of common sense let us reform and adopt a system that will ensure the best possible results all round.

Each family, however poor, must have its bit of meat; and a considerable part of the weekly wage is always set apart for butchers' meat. Even in cases of extreme poverty, sacrifices of many kinds are made so that this "bit of meat" may be secured, and in almost every family throughout England the daily appearance of that particular article of food is regarded as a

point of honors, on it as an a of limitation and hans to have held of the lands that fails to perform the arms of the property. "What will the north of he die to buy a bit of ment?" is a quantism extensible handing the poor, and in it lies the crime of the matter. Dutchers' meat every day in a random or shapers considered necessary to their interpretations, may be attained; it is now any for the nour shapers and well-being of the family be alswinner, and it must be obtained at all costs and hazards.

Dut if each family that will have its butchers' meat once, twice, or even three times daily, is told that this same butchers' meat contains a deally poison that will surely result in disastrous effects sooner or later, common sense, as also that sense of self-preservation which is inherent in human nature, ought to come to our aid and suggest the necessity of giving up this kind of food and adopting a dietary free from such lurking perils and of a more nourishing character.



## III.

## DEGENERATION OF THE BRITISH PEOPLE.

L ET us now see if we can turn that boasted progression, which Western nations pride



themselves so much on, to advantage. Knowledge and understanding are well enough, but they are as Dead Sea Fruits in our hands unless we have wisdom to apply them to those purposes which

have for their aim the general well-being of the race.

If ignorance is not the root of all evil, it certainly accounts for more of it perhaps than anything else in life. There are, it is true, a certain number of individuals who will commit evil under any or all circumstances, and no amount of knowledge or social culture and refinement will stop them. They err from choice; their lives are given over to the pursuit of their

particular pleasures and vices, and nothing in this world will stop them. Let us regard this section of the community as a quantité négligeable.

But with the vast majority of mankind it is different. We are fond of progression, enlightenment, knowledge; we want to learn, and in most things in life there is no lack of teachers. We are indeed full of science, and many of us are very learned in the "ologies," and can tell you all about the anatomy of a plant, for example, its structure, habits, means of subsistence, method of nutrition, etc., and it is good for us that we should know all this and more.

But of the anatomy of the human body, its structure, habit, subsistence, chemistry of nutrition, foods necessary to preserve it in perfect health, and strength, we are, alas, profoundly ignorant. We have a general belief that the food we are, so to speak, born to, that we find in the world when we enter it, is about as good as any that can be had, and we go on eating it all our lives through, just because others eat it. Not one in ten thousand ever bothers his head about it at all. It never occurs to us that many of the foods we eat freely of every day contain poisons that break up the structure of our bodies, bones, flesh and tissues, and seriously impair the great functional organs as surely as heat breaks up ice.

In ignorance of this great fundamental principle of life are we born, in ignorance of it do we live; and when we die we are often absolutely ignorant of the cause of death; of death which, perhaps, in the majority of cases ought to have been prevented, or to put it another way, death might have been deferred for many years had our profound ignorance of the first principles of life not hastened the end.

It may then well be asked, what is the use of progressive science and knowledge, if wisdom be wanting? What, for instance, is the use of that glorious astronomical science which enables us to measure the stars and fortell the appearance of a comet at a given time and place in the starlit heavens, if the astronomer himself cannot select and cook his food without suffering from indigestion, and worse? What is the use of that marvellous inventive genius of the age which has strewn the world with such wondrous shapes and devices for man's comfort and enjoyment, if the inventor himself remain ignorant of the first principles of life, ignorant of that fundamental truth upon which his own body is built up, and which it is absolutely essential that he should know?

The people owe a deep debt of gratitude to their scientists, philosophists and thinkers; to all that splendid array of cultured men and women who have given to the world all that is useful, noise and aplifting, and we stand in admiration and charact in awe at the mighty deal they have done, and we wonder at the greatment of their incellectual power. But behind all this transpendent learning, these great ones of the outh are no using cases, more tyros in the matter of fortung; more babbs in knowledge and of no wisdom wintboover.

Your barned professer who startles his class by the ke nuce of his intellect and the subtilty of his reasoning, by his intellectual gifts and well balanced ann l. 15, in most instances, very slipshod in this respect, and shows lamentable ignorance of food, its constituents, and the chemistry of nutrition. And, as a consequence, there is pechaps no section of the community that sufters more from disorders arising from weak and impaired digestion and the terrible results of food poisoning than our professional scientists. Their minds are so bent on the solution of those problems which physical nature abounds in and which man has determined to solve, that they have no time or thought for the comparative trivial matter of "what to cat and how to eat it," and yet in Nature's great laboratory there is no subject of such importance to the existence of mankind as this apparently simple and sadly neglected food question.

The Attitude of the Wedical Profession.

Nor can we expect much help when we turn to the medical profession, for rarely do we find a physician recommending the use of the great albumen yielding

foods in preference to beef, for example—and yet there are scores of such valuable food staples that are infinitely richer in nutritive properties than is beef, or for that matter any other kind of flesh food. Rarely do we find the doctor ordering his patient anything but mutton broth, or beef tea, to keep up his strength. Or just a bit of fish or chicken, and later on a nice little mutton chop just to coax back the appetite and prepare the stomach for greater deeds when the sick one shall become stronger. Animal food in some form or shape the invalid must have, and the valuable life-giving products of the vegetable world with their wealth of albuminous food remain as unconsidered trifles in the dietary prescribed by the ordinary medical practitioner. And yet many of these articles of diet are infinitely more suited to their patients than flesh food is.

But it would be manifestly unfair to blame the doctors for a state of affairs which they cannot—under present conditions—well avoid. The medical profession are as much addicted to the use of dangerous foods and an irrational system of eating and drinking as their lay brothren. The food question, from the point of view as herein depicted, does not form part of their curriculum; they are taught at school and college that flesh foods and the various extracts made therefrom are the most nourishing and reliable in health and generally in sickness, and they come to regard them in that sense all through their professional career. A diet in which meat in some form largely figures is the kind of food usually indulged in by most medical men, and if they freely partake of such food themselves, it is no wonder that they recommend it to others.

The school in which they are taught is behind the times; it practically ignores, in respect to food, the teaching of analytical chemistry, and to this extent is fundamentally wrong. It is known that man requires the constant intake of certain substances to maintain physical and mental vigour and general fitness. It is known that these substances are found in many of the food staples consumed by man, and it is also known to a fraction what each of them contains. It is perfectly understood that it is wholly unnecessary to import these particular substances into the human system through the medium of one particular kind of food, and that they nourish and sustain equally well if other foods are used as vehicles of importation. other words, we know that meat, for example,

is not the only medium through which the lifegiving forces can be imported into the body, because a large percentage of the peoples of the Western world are practically non-meat-eaters, while the vast majority of the Eastern races have been total abstainers from flesh foods for countless generations, and yet these races not only exist, but increase rapidly.

But in spite of this common knowledge, the medical schools remain blind to facts, or at all events, they take no pains to make this allimportant food question a prominent feature of the medical curriculum, and so the embryo medical practitioner emerges from his training more or less ignorant of the elementary principles of life. As a fully-fledged doctor in large practice, he may or may not know that there are scores of products richer in life-giving foods than can be found in any flesh foods, and that these, if eaten with intelligence and wisdom, would sustain health and strength much better than meat, and without danger to life; but if he does know this he certainly keeps it to himself as a rule. Our common experience is that doctors generally recommend, or at all events favour a meat diet, and that they do so because their medical training gave them a bias in that direction there seems but little doubt.

But it is encouraging to note that progressive men in the profession are now rapidly

apprehending the truth concerning this important matter, and are becoming prominently active as workers to promote a general dietetic reformation.

If we turn to our spiritual guides for help, we are no better off, for among the clerics we find, with some bright exceptions, the same habit of living indulged in as among other classes, and it is obvious that this section of the community will not at present give us much help. From the pulpit and from the scientific professions should the note of warning come, but those who might be the people's mentors are dumb, those who might lead are blind and are themselves in need of leaders, and there is but little hygienic education forthcoming.

If we then find such general ignorance and negligence prevailing among the highly gifted ones of the earth, among those to whom we might conceivably look for enlightenment, the very men who should point the way to their less gifted brethren, how can we reasonably look for knowledge and wisdom among the working classes?

It is a common rule of life to help ourselves when aid from other sources fails us. It is perhaps not altogether a wise rule, because it would be better to help ourselves on all occasions, and under all conditions. Self-help, self-confidence, self-reliance, are necessary individual

qualities to possess, and the lack of them renders us entirely dependent on others, reliant on those who will probably fail us in our need.

Because we have trusted to others to point the way for us, we have, alas! missed it, and we remain profoundly ignorant of the great highway to health, that path which, when found and continued in, will lead us to abounding health and strength, and set in active operation that current of life-forces which is able to impart vigour to the body and happiness to life, to make life worth living, instead of its bringing, as it does to day, unhappiness, illness, and misery to so many millions.

The Philosophy of Body-Building. The body requires the same care and attention, the same knowledge of the kind of food that is necessary for its support and nourishment as a vine does.

Every good gardener knows that unless he feeds his vine with certain composts which contain the nutrition necessary to its existence, it will not yield good fruit, and that it will languish and die away; and he, therefore, takes every care that his vine shall receive at proper intervals just the food that it requires to keep it healthy and strong, so that it may yield its fruit abundantly. He finds it necessary to study the various vine foods that are on the market so as to be sure that their constituents



it the pivot upon which turn the issues of life, they would start upon their career with some knowledge that would stand them in good stead, instead of being sent forth in utter ignorance of the elementary principles of their own lives.

But do we ever find the same care exercised where the body is concerned? Do we find the British housewife, for example, studying with marked care the food she buys and prepares for the support of her family? Does she know the relative value of one food over another, or whether they are rich or poor in those constituents which are essential in building up the body? Does she know anything of the body's anatomy, its structure, what it is made of; its waste, and the necessity for supplying that waste with food containing just those elements necessary for its nutrition? Does she know anything of nitrogenous or carbonaceous foods, or of phosphates, all of which are necessary to produce and maintain the life-forces, bone, muscle, brain and nerve force, heat and energy?

It is certain that she knows nothing of this. She believes that beef, for instance, is the most strengthening food she can buy, and it is a point of honour with her to supply that article of food to her family as often as the family finances will admit of. She roasts, boils or bakes it with an accompaniment of potatoes

and grower the rates it with a bit of mutton, park or basen, with the ame garnishing of regetable; and this, with the addition of a plantim supply of white bread, may be taken as a thirly representative menu of the British werking classes.

She does her best, poor woman, according to her light, and there are none to help. Her husband is as ignorant as she is, her boys and girls and no mention of the food question at the board school training; there is a dead level of ignorance of the science of feeding prevailing everywhere; some of the family get ill and the doctor who is called in can't relieve the situation, and she goes on her way in profound ignorance that she is doing incalculable harm to those for whom she would give her life to save.

But the poorer classes are not the only people who believe that butchers' meat and bread supplemented by potatoes and green stuffs, form an almost ideal food. Such a belief is prevalent among all classes, and up to quite recently it would have taken a bold man to attack it; indeed, nobody would have listened to him and his energy would have been misspent.

Nobody, for example, would have believed that there is really more nourishment, more body-building material in a score of other foods that have hitherto remained neglected items of dietary, than there is in the finest beer ever grown! Not a man in a thousand was prepared to admit that a pound of good cheese contained more than twice as much nutriment as a pound of prime beef steak, or that a pound of dried peas contained three times as much.

To have asserted that nuts of all kinds vielded muscle and nerve-making food, heat and force-producing properties in such rich abundance as to leave all kinds of butchers' meat far behind, would have been tantamount to writing oneself down an idiot, and yet it is so; chemical science has stepped in, and we may no longer shut our eyes to facts.

Some Comparisons.

Before we array side by side the Physiological various protein-yielding foods so as to have at a glance their relative value as body-building

agents, let us see what unsuitable badly-cooked food, butchers' meat and white bread have done for us: don't let us condemn them without trial.

One of the surest proofs of the goodness and fitness of a nation's food will be found in the effect it has on the health and physique of the people. If it is found that they have improved, or that the standard of health and vigour has been maintained, then it would be conclusive that, other things being equal, the national food has agreed with them. But if, on

the other hand, is to found that the public holds and physique, have declined; that decides around from important digestion are protected universal, and that diseases of all hinds—many of them of a terrible nature—are whis-pread among all sections of the community, then the collected would be conclusive that the national total does not agree with the people, and that considerable reform is necessary before health and strength and general fitness can be revised to them.

We have only to take a calm, dispassionate survey of the situation to see which view is correct. Do we find abounding health and physical robustness on every side, or enfeebled constitutions, a decline in physical fitness, and a greater proportion of disease and suffering than there ought to be? Do we not find that such terrible diseases as cancer, paralysis, and the many dreaded forms of tuberculosis, are far too common, and that the many thousands of patent medicines offered to the public are only made because they meet a want? The physician's medicine and the surgeon's knife are in constant demand, and a really sound constitution is becoming rarer every day. These are surely awful portents, and shall we ignore them?

One of the most eminent living physicians, Dr. S. Keith, M.D., LL.D., in comparing the

present system of feeding with that which obtained 70 or 80 years ago says:—

"In my young days in the twenties, and thirties, the food of the working man, and also of most of the upper classes, was simple and good. It consisted mostly of fish, oatmeal, potatoes, and a few other vegetables. There was no baker or butcher in the parish, and there was no doctor within five miles, and as his fee was £1 he was rarely wanted; the clergyman was the ordinary medical adviser. . . The sanitary state of the houses was worse than now, and croup, and a peculiar local form of ague, were no doubt due to a want of drainage of the fields. But with the good food I have just mentioned there was not much general sickness. It supplied all the wants of the body in a perfect manner, and gave no great 'temptation to excess. By-and-bye times changed and white bread and flesh came into general use. Along with these luxuries came the doctor?"

Speaking of the effect of butchers' meat on the system, he says:—

"Naturally the over-worked kidneys are the first to give out, and failure on their part may prove fatal; or the blood gets loaded with animal matters of which they fail to relieve it; and these are deposited in various organs in some form of fibrine, which by-and-bye hardens and destroys more or less their substance and their functions. A very common form of evil arising in this way

is what is called general paralysis; I never heard of this in my student days and not till long after. No doubt cases occurred before and were known by a different name, but they were few, and their number has increased enormously during the last thirty years."

Direct personal evidence like this should not be ignored because it offers the most valuable information we can possibly get on the subject. Here we have a great physician and a keen observer; a man who has been studying the human body and its diseases all through his long strenuous life, setting before us evidence that enables us to form definite conclusions; definite because the witness tells us what was and what is, and we can therefore judge by comparision: the surest way to arrive at satisfactory results.

The Dangers of Flesh-food. It is unfortunately beyond question that evidence showing the evils arising out of the free use of butcher's meat is accumulating every day, and thoughtful men of every degree are arraying themselves against its use. It is becoming more evident that many of the dread diseases which are so prevalent to-day are due to flesh-food, and bacteriological research is slowly but surely revealing the hidden dangers that lie in the family joint.

It was found not very long ago that go per cent. of the late Queen Victoria's dairy cows at Windsor were tuberculous and if such widespread disease is possible under such favourable conditions as obtain at the famous Windsor dairies, what an alarming state may exist in respect to the millions of cattle that are slaughtered in this country and other parts of the world and sold for human food! Government Inspectors exercise every care, and the constant prosecution of vendors of bad meat proves the necessity for public protection; but the danger does not lie so much in the few palpable instances that are detected as in the innumerable cases that are never discovered.

Meat, to all appearance, may be perfectly good and wholesome, and yet be tainted with some form of tubercular disease, and all the Inspectors in the world may not be able to detect it. The human eye cannot see that which takes the complicated paraphernalia of an analytical laboratory to discover; and no blame can be attached to the Government Inspectors if millions of pounds of meat are passed on for human food that are full of disease.

Animals suffer from diseases such as footand-mouth disease, anthrax, tuberculosis, cancer, swine-fever, and many others; and when we come to realize that it is very difficult from the appearance of the meat to ascertain if an animal was discussed when slaughtered, the danger of exting flesh food is too obvious to need emphasizing! This fact is becoming more evident daily by the frequent deaths from what is called "promaine" poisoning, and all that we can do to help ourselves is to prosecute the man who sold it and get him fined a few pounds.

But quite apart from such considerations, there is really no reason why flesh food should be sought after. Its extreme cost is out of all proportion to its value in comparison with scores of other foods infinitely richer in body-building properties. It is not necessary to the formation of muscular force, and its nutritive property is far below that of many other foods.

Meat-eating is chiefly confined to England and certain parts of the Scotch Lowlands. In other parts of Great Britain the practice is rare, milk, cheese, oatmeal, potatoes and other vegetables forming the food of the people. It would be a rash statement to say that the Highland Scotch, in spite of the rigour of the climate, are less hardy and vigorous than their meateating brethren of the Lowlands; or that the sturdy Irish peasantry are inferior in muscular strength and general fitness to their English compeers. Nor among the English can it be claimed that butchers' meat is necessary to

ensure physical force and endurance. Anyone taking the trouble to enquire will find that many "record breakers" among our athletes, walkers, runners, and cyclists are abstainers from flesh food; and while admiring their prowess, and envying their splendid physique, the world remains ignorant of the fact.

Outside our own country facts are more convincing because they are to be met with on every hand; and everybody who travels among the peoples of Europe will not deny that, on every side, there is unmistakable evidence of health and vigour. Rarely does one find a young person suffering from bad teeth, that sure sign of decay; and there is an air of general fitness and hardihood about them which bodes well for their nation. The working classes of France, Italy, and Switzerland, urban or agricultural, are healthy, industrious, and physically fit; and they rarely taste butchers' meat. If we go farther afield, to Austria and Hungary, we find there a splendid peasantry and the finest working class in Europe. The Croats, for example, are about as fine a section of the human family as can be found, but they are not meat-eaters.

The Vitality of the Orient. And if we go East, to remote India, for instance, we find races there that have never tasted flesh food for countless generations; and yet hardihood and endurance are maintained to a

degree that astonished Anglo-Indians. The Indian troops are among the finest in the world, and the military authorities of the country know full well how safely they may rely on their physical fitness and marvellous endurance. It is well known what tremendous distances the ordinary native can travel in a day, and the little he can do it on. A handful of parched gram (a kind of lentil) and a draught of water occasionally, and he covers a distance that would break down an ordinary European. And the prowess, stamina and general ability of the Japanese is now known to the whole world.

But it is when we come to examine the athletes of India that our astonishment reaches its climax, for there we find bone and muscle and physical fitness in its most perfect form; and the human race does not produce finer specimens of manhood than are to be found in the wrestling arenas of India. Perfectly trained are these magnificent athletes, and however much the eye may wonder at and admire their appearance, there is much more to marvel at when they are at grips with their adversaries, for it is here that that tremendous staying power, which is their characteristic, becomes manifest, and we turn away astonished at such a display of physical endurance. Many of these men are of the highest castes in India, and never touch flesh food; their diet is of cereals, vegetables and fruits,

with milk and sugar and sweetmeats in large quantities—a diet that English wrestlers or prizefighters would laugh at, and yet the world can produce no finer types of manhood than these famous Indian athletes, and has no finer soldiers than are to be found in the ranks of our splendid Indian Army.

It is of course impossible in a book of this size to go so fully into the question as its importance demands. The subject is a vast one, and must be left to those who have ample time to devote to it. But enough is already known of the evil effects of flesh food on the human body to justify a word of warning to those who are still ignorant of the danger there is in its use.

Ignorance is a terrible foe to humanity, and we are subject to it in so many forms. In the common-places of life it abounds, and we often wonder at our simplicity when a friend comes along and tells us some truism which makes us smile at our own ignorance. "How stupid of me!" we say; and then we go on in the same way till something else is pointed out to us.

How often do we hear people say: "Meateating can't be so very bad after all, because we see so many old men and woman who have eaten meat all their lives"; or, "I know a man of over eighty who has eaten meat all his life and who is quite hale and hearty."

People who give utterance to such inconsequent remarks are, as a rule, just the type of individuals who will not think for themselves, and who really don't want to learn; the sort of man or woman who does things because other people do them; the person who won't bother his head about things and sums up the position by saying: "What's good enough for most people is good enough for me."

As a matter of fact, although remarks of such a nature are of no real value in the determination of any subject, and cannot possibly affect the question in its fundamental aspects, they are nevertheless capable of doing incalculable harm to those seeking after truth, and many a man has been deterred from looking into the matter for himself because of some ill-timed remark of the above nature.

We should always bear in mind that everything in this world is relative, and that we really know little or nothing of the inner life of the people we come across in our life's journey. There are meat eaters of many kinds; some who consume flesh foods in large quantities, and some who partake of it sparingly, and it is difficult for us, with our slender knowledge of their individual habits, to determine which is which. But we may be sure of this, that those who indulge freely

in the use of flesh food are more liable to become victims of one or more of that terrible array of deadly diseases which medical science affirms arise out of a liberal consumption of meat, than are those who eat of it sparingly or who abstain from it altogether.

Profound ignorance everywhere; ignorance of one of the elementary principles of life; and this ignorance often leads us into positive danger, and sometimes into crime even, and it is then that we realize, perhaps when it is too late, how much better it would have been for us could we have known. "Had I but known!" "Oh that somebody had told me!"—are cries that are so often uttered out of the depths of human misery; and so the heart is crushed by the weight of its own ignorance.

Life is not lived well if it gains nothing by experience, and if we deliberately shut our eyes to facts, facts that are good for us to know, we must accept the consequences.

Man is in all things a free agent; he may elect to do good or to commit evil, nobody will prevent him; his freedom in such respects is only bounded by the limitations he himself sets, and he has only himself to blame if he takes a stupid or vicious course after the way has been pointed out to him.

If a certain course leads to wrong doing, and its consequences, don't follow it. If the

committal of a certain act leads to prison, don't commit it; and if it is harmful to eat butchers' meat, don't eat it. It is not necessary to human existence that it should be eaten; it is indeed essential to our health and well-being that we should abstain from its use, and once we realize the perils that lurk in the steak or the sirloin, it is our fault if, after this, we allow them to do us any harm.



## IV.

## HEALTH FOODS AND HOW TO GET THEM.

Now let us briefly glance at the long array of those wholesome, health-giving foods that

our inspection, and which we have so sadly neglected,—
patiently have they awaited our coming, and when we at last turn to them for help, it is with a sense of shame that we do so, for we seem, so to speak, to recognize a number of friends among those we have treated with indifference all

have been waiting so long for

our lives through, and almost despised.

The food stuffs may be divided into two great groups: (a) the proteid, nitrogenous or albuminous, and (b) the carbonaceous, or starches, sugars and fats. The former of these build up the muscular fibres of the body, form flesh, and supply waste. The latter are converted into heat and force, and sustain physical energy, muscular and nervous, and also mental power.

Born Linds of for I are necessary to maintain the body in perfect health and strength, and as a is a central that the question should be understood by all those who wish to command these blessings, a questil study of a very useful little work on the subject by Dr. Halg entitled "Diet and Food" should be made.

Nitragenous or proteid matter is found in the flesh of animals, but it more richly abounds in certain vegetable products such as peas, beans, lentils and outs, and in milk and milk products. But apart from this fact, these and many other vegetable foods are far richer in other nutritive constituents than beef is. For example, the total nutriment found in beef is 28 per cent., while in lentils it is 83 per cent.; macaroni contains 89 per cent., and wheat meals as much as 88 per cent. Beef, however, contains no carbonaceous matter, such as starches or sugars; and by comparison, therefore, it is not so valuable a food as many others.

Carbonaceous—or starch and sugar yielding foods—are abundant, and embrace the cereals; the pea and bean family; lentils; nuts, fruits, and many others; they are comparatively cheap and moreover astonishingly rich, not only in carbo-hydrates, or starch-matter, but also in nitrogenous, or proteid matter; and they contain in themselves all that is essential in building up the body; bone, muscle, flesh and blood; and supplying heat and energy!

Milk, cheeses and eggs form a small group of themselves, and are very valuable, milk with its products being an almost ideal food for young and old, while good cheese is richer in protein than beef, and contains more than twice as much nutriment!

Then we have the green fruits and vegetables which not only purify the blood and give a wholesome tone to the system, but are in many cases fairly nutritive. They are also useful in yielding a considerable portion of our daily water supply in the purest form. Sweet fruits, such as figs, raisins, dates and French plums, contain from 73 to 86 per cent. of nutriment. These, and many other foodstuffs, form man's natural food, and as they are abundant and contain in themselves all the life-giving elements that are necessary in bodybuilding, there is certainly no need to resort to the flesh of animals, more especially as such food is costly, of less nutritive value in comparison with many other foods, is harmful to the human body, and productive of many fatal diseases.

All this, and much more, may justly be said in favour of the many foods mentioned; and although they are within the reach of all, rich and poor alike, they are not in general use! The rich will have but little to do with them because it is not fashionable to introduce vegetarian or fruitarian dishes into the menus of the day, and the poor won't have them because they are ignorant alike of their good value as food stuffs, and how to cook them! The vegetable food turned out by the ordinary working class housewife is unpalatable, unattractive, and indigestible; and it cannot be wondered at if the master of the house and his children turn up their noses at such unappetising fare. "Give me a bit o' something I can eat" is often said by the good man when his wife departs from the ordinary roast or boiled, and tries her hand at something out of the common; and so, for lack of knowledge of how to prepare even a few out of the many splendid materials at hand, these wholesome and necessary foods remain neglected.

Boiled potatoes, watery greens and turnips, with a few beans or peas in season, form the chief vegetable food of the people; and if they do not regard them in such a form as either appetising or satisfying, small blame to them. Vegetables as ordinarily cooked by the British housewife are indigestible and innutritious, and are worthless as body-building food.

But to say that vegetable products are worthless because the good wife, out of her ignorance, cannot prepare them in a manner to preserve their nutritive properties and render them tasty and attractive, would be to deny the sun's warmth and brilliancy because it is hidden for a time under a dark cloud. The sun is there sure enough, and the virtue and

life-giving properties of the cereals are there also, despite our temporary disbelief in their existence, or failure for a time to perceive them.

But many people now know that these valuable foods can be prepared in a hundred different ways, and prepared too in a manner that preserves all their nutriment, renders them sustaining, and toothsome and tasteful to a degree that would appeal to a French chef.

The Advantages of Simple Fruitarian Diet. But the most significant fact in this connection is that once people know how to prepare these fruits of the earth so as to tickle the palate and maintain bodily strength and vigour, and preserve they return no more to the "flesh

the life-forces, they return no more to the "flesh pots of Egypt"; the taste for animal food dies, and with it dies also the many evils arising from its use.

Many excellent little works have been published lately under the auspices of The Order of the Golden Age (Paignton, Devonshire) and those who desire to adopt a rational system of feeding would do well to consult their pages. These useful little guides are within the reach of all, as they cost from a penny to a shilling. A short list of useful publications on the subject will be found at the end.

It will be found that, in the aggregate, the recipes given are so numerous, of so varied a

character, and withal a simple, that all may find something suitable to their particular require-

ments, and even the most factidious need not turn away disappointed. Recipes for invalids, vegetable comps; substitutes for animal foods and fish so skilfully devised that many a ment-eater would be deceived. Croquettes, cutlets, rissoles, ragouts, pies, aspics, brawn, rich gravies, and many other good things are offered

so freely that we are lost in amazement at our ignorance and wonder why on earth these things were not known before; why these kndly fruits, which are obviously here for our consumption, have remained unconsidered items in the economy of English life; and why we have been blind to their many advantages. People have been wiser in foreign countries, and for generations they have known the value of all that great array of life-giving foods, which it has been our misfortune to disregard and despise. Let us, however, awake from our lethargy and throw off our ignorance.

Science has spoken and we may not ignore her voice. Man's food has been subjected to the searching light of chemical analysis; it has been separated into its component parts, and the comparative value of each article in the long list of foodstuffs used by man is known to a fraction, and we cannot escape the fact.

But let us remember that Science does not plead; she speaks; speaks with cold merciless logic, but withal so plainly that we cannot fail to understand. Yet it is true that many of us never hear her voice. We are absorbed in our own affairs: busied, and in many cases worried, by all sorts of things, and we have no time or thought for certain scientific jottings which really seem to be outside our province, and so the voice of Science does not reach us. We are, however, fortunate enough to have at hand an earnest capable band of men and women who, having benefitted by the teaching of Science, are only too glad to pass on their knowledge to their less fortunate brethren in the hope that ignorance may be dispelled and that health and strength and physical vigour may succeed disease and weakness, and the many evils which result from a lack of knowledge of the comparative value of the numerous articles which are consumed as human food.

Thoughtful men and women in all parts of the Empire are pointing the way; and among scientists, physicians, surgeons, philosophers, and men eminent in literature, are to be found many who are enlisted in favour of a very general food reform, and it is certain that they will carry their point. The grossest ignorance of the entire rationale of the food question exists among all classes, and the necessity for making the people see this, in the first place, and then pointing out how light may follow darkness, is so obvious as to need no emphasizing.

The table of food-values at the end of these pages, a careful study of which is strongly recommended, is taken from Sidney Beard's "Comprehensive Guide Book to Natural, Hygienic, and Humane Diet," and other analytical food tables; and as it speaks for itself comment is unnecessary.

Apart altogether from the wholesomeness and highly nutritive properties of vegetarian and fruitarian food, its cheapness is remarkable. At many of the London Vegetarian Restaurants excellent and tasty dishes may be had at very low prices, and when a well-cooked and nicely served three-course dinner, good in quality and ample in quantity, can be had for the moderate sum of sixpence, it is clear that its cost is, in comparison with flesh-food, much less, and therefore more within the reach of the poor. Vegetarian dishes can be prepared so daintily that even a gourmet need not turn away from them; a high degree of excellence both in quality and flavour can readily be obtained; nor need the British housewife despair of making them in a manner that will prove attractive, tasty and appetising, because the instructions found in the little books on the subject are so clear that a child might understand them.

Here are a few dishes, and their prices, taken from one of the daily menus of the Vegetarian Restaurant, 278, High Holborn:

Macaroni au Gratin & Grilled Tomatoes and

Macaroni au Gratin & Grilled Tomatoes	5d.
Vegetable Steak & Baked Potatoes	4d.
Butter Bean Pie with a Vegetable	5d.
Tomato Stew & Dumpling	4d.
Braised Carrots & Peas with Mashed	
Potatoes	•
Savoury Egg Omelette & a Vegetable	_
Grilled Tomatoes & Vegetable Steak	_
Split Pea Fritter & Cabbage	4d.

Then we have the more ambitious three course dinner from the same Restaurant, and as it is necessary for the public to know what an excellent dinner can be had for the moderate sum of sixpence the menu is here reproduced in full.

(Each line constitutes one course.)
Oatmeal Porridge and Milk.
Wheatmeal " " " "
Semolina " " Stewed Fruit.
Lentil Soup and Bread.
Hotch Potch and Bread.
Tomato Stew and Dumplings.
Macaroni au Gratin and Mashed Potatoes.
Vegetable Steak and Mashed Potatoes.
Braised Carrots and Peas do.
Cabbage and Tomatoes.
Parsnips and Cabbage.
Peas Pudding and Butter Beans.
Butter Beans and Beetroot.

Same Roll Padeing.

Same Custard
April of Tart.
Gameborry Tact.
Blanc Mange and Apples and Blackberries.

April of April 2019.

Lady Apples.

It will be noted here that each line of the menu constitutes one of the three courses: and after cuefully studying this wonderful bill of fare and realizing that we can get a wellcooked, nourishing, and tasty three-course dinner, including sweets, for the ridiculous sum of sixpence, we cannot help being struck at all events with our amazing ignorance of what every man or woman ought to know; viz., where to get wholesome, appetising, bodybuilding food at a moderate price. Rich and poor alike should know this for the reasons that have been set forth herein; and efforts are being made in many directions to point out to the people the errors made in eating and the physical degeneration that follows therefrom.

Popular
Illusions and Over-feeding.

There is an important point to bear in mind, and one that is bound to exert an enormous influence on the question, and we should therefore be careful not to overlook it. Nearly every convert to vegetarianism thinks he

must of necessity partake largely of vegetable foods to "make up," as he terms it, the loss in nutrient value he fancies he sustains in giving up flesh foods. He believes that beef and mutton are so richly nutritive that he must take in daily vast quantities of vegetable substances to repair the loss, and the result is that many a beginner does not fare so well on his new dietary as on the old. Large quantities of cereal food, milk, cheese, green vegetables, fresh and dried fruits, are consumed daily; many of them more richly nutrient than either beef or mutton. The furnace doors are constantly open, and huge quantities of fuel are shovelled in regardless of consequences, in a short time the boiler flues become congested with unconsumed particles of the fuel, and something goes wrong with the boiler; the works are impeded for a time; an overhaul takes place and the experts called in pronounce the fuel to be of inferior quality, or unsuitable for the purpose, the old kind is ordered to be used, and the convert to a rational system of eating comes to grief through his own ignorance of a very simple subject.

Ignorance here, as in all things else in life, is prolific of evil; and out of it arises trouble and disappointment to the beginner. The idea that he has only to partake of vegetable food freely and in an indiscriminate fashion is fundamentally wrong. He must learn that many of

the vegetable products that he partakes of are astonishingly rich in both nitrogenous and carbonaceous properties, and that they contain two or three times more nutriment than any flesh food, and that they should therefore be eaten sparingly.

But on the other hand we should be equally wrong in resorting to green vegetables, for example, for our daily supply of nutriment, because it will be seen from the food tables that this form of vegetable food, with the exception of potatoes, contains but little nourishment, and should, therefore, only be eaten as adjuncts to the more sustaining foods, such as cereals, beans, peas, lentils, rice, nuts of all kinds, dried fruits, and milk and milk products, eggs, and other foods of like nature.

Wodern Scientific Foods. Then there are scores of delicious, wholesome strength-giving foods to be had of the many enterprising firms who have devoted consider-

able time and attention to the all-important food-question, and whose productions may be relied upon, as they are prepared with skill and judgment.

Hitherto our provision makers have not been celebrated for their chemical knowledge or scientific attainments, but here we have a number of men who, having recognized the enormous importance of the food question, have studied it from a scientific standpoint, so as to ensure to consumers the maximum of nourishment with a minimum of harmful results.

Many of these foods contain precisely the same nutrients, but in a much higher degree, as prime beef, for example, without those deleterious substances which are so harmful to the human body, and as their individual nutrient value is well known, a careful study of their properties and the part they are capable of playing in the physical economy of our bodies will well repay those who wish to preserve their health and strength. The names of some of these 'rational food' caterers will be found in the Appendix.

Let it briefly be stated that any man, vegetarian or flesh-cater, can commit errors in eating, and that in the majority of cases he falls into such errors through ignorance. As a matter of fact the quantity of food a man requires to maintain the body in perfect health and strength, and to ensure a high standard of physical and mental fitness, is so imperfectly understood as to demand a brief allusion to the matter.

The amount of food necessary to support life must necessarily vary according to habit, occupation and age. An athlete requires more than a bookworm, and a navvy more than a man behind the counter. Youth wants more food than age, and, generally speaking, man more than woman. It is, therefore impossible to lay down a rule for all. The question has, however, recently received so much attention at the hands of scientists that certain tables of food values and quantities have been drawn up which will prove of immense benefit to those who are desirous of regulating their diet by some rational system.

Among other publications, a very useful little work on the subject, entitled "Diet and Food in relation to Strength and Power of Endurance," by Alexander Haig, M.A., M.D. Oxon; F.R.C.P., has recently been published. Dr. Haig's object is to show that physical strength can be well maintained on a flesh-free diet, and if his views on the subject are considered somewhat extreme by some, they will no doubt appeal forcibly to others; at all events a perusal of its pages will well repay those seeking for information, and Chapters III and IV, pages 46 to 109, may be closely studied with advantage. Dr. Haig gives four short tables showing the quantity of albumens required daily to support a man of average weight, and with these and other works of a similar nature before us as a guide, no man, who intelligently studies the matter, need go wrong.

There is nothing arbitrary or inelastic about these tables, and they are so arranged that if the bulk of Table I does not suit the impaired digestion of the dyspeptic, Tables II and III will be found more suitable; or if neither of these suit those who are inclined to obesity, then Table IV will probably meet the case. At all events, the subject is treated in so simple a manner as to be easily understandable by any person of ordinary intelligence. Here is one of the Tables, No. II—

```
5 oz. Hovis Bread, 16 per cent, of Albumens ... 340 grains.
2 oz. Oatmeal
                                                ... 104
                     12
1 oz. Gluten
                     80
                                                 .. 344
                                                ... 262
1 pint Milk
                     3
21 oz. Cheese
                                                  . 350
                     33
                            ,,
                                  ,,
                                        ,,
                                                           ,,
```

1,400 grains.

Here it is shown that a man requires, as a maximum, 1,400 grains of albumen daily to keep him in perfect health and strength, and it is clearly pointed out that this can be obtained, if necessary, from 11½ oz. of food, a quantity that is often largely exceeded at one meal. But it is also shown that one need not necessarily follow this particular table; there is an immense variety of food to choose from, and each man may therefore make his own selection to suit his own tastes.

Other authorities put the daily quantity of albumens at somewhat below Dr. Haig's estimates. It seems clear from experiments conducted in America, the results of which have been recently published, that under certain conditions, notably thorough mastication, the quantity of food necessary to sustain human life at its best can be put

considerably lower than the above estimates. But Dr. Robert H. Perks, M.D., F.R.C.S., says:

"In practice, the due maintenance of body weight and muscular force is a reliable indication that a sufficient amount is taken."

This short, pithy sentence exactly sums up the position, and each of us must therefore decide the question for himself.

Most of the little works referred to at the end also deal with the subject, and as the Table of food values herein gives the constituent parts of most foods that would form one's dietary, there should be no difficulty in making the few simple calculations necessary to determine which of the foods to select, and how much to eat.

We should bear in mind that as many of the foods contain the carbo-hydrates as well as the nitrogenous or albuminous constituents, we shall probably get what we want of the former while taking in our daily supply of the latter; but if we do not do so, it is an easy matter to arrange so as to get an adequate supply of both. The food products are under our own control, and by a little care and attention we can so arrange as to ensure a suitable supply for our daily wants of a quality and in such quantity as to suit young and old, the strong and healthy, the weak and infirm; and if we do not do so, or if by inattention or ignorance we miss the way, then we must blame

ourselves and not the food, or those who point out the advantages of a rational diet.

Among other things, vegetable diet, in comparison with flesh-food, is less inflammatory, and is a non-irritant; and really marvellous effects have followed its adoption. Quite recently some of our most eminent physicians have offered startling evidence of its healing properties, and it is definitely stated that several cases of malignant cancer that had been operated on or had been extirpated more than once, and that had defied ordinary treatment, had entirely yielded to a strict course of vegetable diet. In all the cases the patients are perfectly cured. Rheumatism, eczema, and many so-called diseases arising from uric acid troubles yield readily, in most instances, to abstinence from flesh foods, and it seems certain that when the advantages of rationalism in eating are better known, and the mists of ignorance which now obscure our understanding are dispelled, the human race will recognize the wisdom of the system and adopt it.

There are so many diseases in the world, so much sickness and suffering, so much sadness and sorrow, that one becomes weary of it all, oh, so tired and weary; and we often ask ourselves, "Is life worth living?" Perhaps not, to many a poor soul who is bowed down by suffering and whose body is racked and rent by pain. To those who are stricken by disease and blighted by bodily

sufferings of many kinds, life, no doubt is a sore trial, and many a weary one would gladly lay it down. But we should bear in mind in this connection that we are depicting the abnormal, and not the normal, life as man has made it, and not as it was given to him by his Maker; and we should also bear in mind that if this widespread disease and suffering be the result—as it undoubtedly is—of imprudences of living, of ignorance in eating and drinking, among other things, it is certain that these sad effects cannot be traced to vegetarianism as a cause, but rather to other forms of food.

No one would be foolish enough to assert that in vegetarianism will be found a panacea for all bodily pains and ailments, a cure for all the ills that flesh is heir to, but it can be safely asserted that those who live on vegetable food, with milk and milk products, and select their food with care and judgment, partaking of it sparingly, yet in sufficient quantity to maintain bodily strength and vigour, enjoy generally better health than those who live on flesh foods, and are far less liable to those diseases that cause such widespread suffering among the meat-eating section of the civilized community.



V.

### DISCURSIVE.

We would now briefly notice one or two aspects of the question which have not

been referred to in the preceding pages, or which have been touched upon more or less imperfectly, and which it will be useful for us to consider.

There has been and is still a tendency, on the part of some writers in the press, and others, to class

everybody who holds enlightened and progressive views on this, as on other subjects, as more or less of a "faddist." The result has been that a good deal of misplaced ridicule has been directed against the disciples and advocates of food reform; but as many journals are, however, now showing a tendency to advocate reform, it is to be hoped that this peaceful aid will do much to remove the mists of ignorance which have hitherto enveloped the entire food question.

Among other things, the public has been led to believe, curiously enough, that one of the effects of wisdom applied to the selection and preparation of food must necessarily be the production of young men and women of the pale and spectacled type. They are also possessed with the vague idea that vegetarianism, for example, necessarily reduces muscular vigour, hardihood, and physical endurance, and that a man becomes soft and feeble and more or less unfitted for the battle of life; altogether less manly, in short.

Such absurd notions are of course the result of profound ignorance of the subject, and only exist in the minds of those who never think for themselves, and who are always influenced and guided by what "they" say—that intangible, irresponsible "they" who are answerable for so much in the world to that particular section of the community who never settle anything for themselves.

For the information of this benighted section of humanity it might be stated that among the finest atheletes of the day are to be found many record breakers who are not only total abstainers from alcohol, but from all kinds of flesh foods as well.

Here is what one of our greatest medical scientists; says:—

"It follows absolutely from my researches, published in "Uric Acid" and elsewhere, that a

<sup>\*</sup>Dr. Haig in his "Uric Acid—An Epitome of the Subject"-1904.

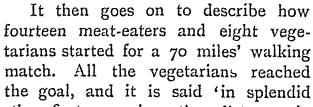
diet entirely free from all animal flesh, tea, coffee, and similar alkaloid-containing vegetable substances, is far and away the best of all kinds for training and athletics."

Speaking of the available information in regard to the suitability of vegetable food for athletes, he says:

"Hitherto the knowledge we now have has been applied more or less haphazard, or by rule of thumb, and yet even so, it has achieved some wonderful results.

Some of these I have already recorded in 'Uric Acid,' and another comes to hand in an article in the Daily News of June 29th, 1898. It is from

their Berlin Correspondent, and is headed, 'A Vegetarian Victory—Meateaters Walked off their Legs."



condition,' the first covering the distance in fourteen and a quarter hours. An hour after the last vegetarian, came the first meat-eater, and he was 'completely exhausted.' He was also the last meat-eater, as all the rest had dropped off after 35 miles.

Now these results, so far as I know, were produced without any scientific knowledge, and in more or less ignorance of the facts above stated;

and it so much has thus been achieved, how much more may be possible if we apply our knowledge with case and thoroughness, if we ensure sufficient abunen and force, while rigidly excluding the poison, which cause friction and jar in the machinery."

It should be noted in this connection that Dr. Haig is not a vegetarian, but merely a professional scientist whose elaborate analytical researches into the question of diet and food, among other things, have enabled him to determine, with almost mathematical certainty, which of the many foods that man consumes are the best in building up and maintaining the maximum of physical strength and endurance, and mental power.

It might also be further mentioned that, with the exception of the chief bulk of the British race and a few other exceptions of a minor nature, the peoples of Europe and the Western world are practically abstainers from flesh foods, and as many of these peoples possess a physique which compares but too favourably with the vast majority of the British race, there need be no fears about not finding oneself in good company if meat-eating were abandoned.

Then there is another insuperable reason why meat cannot be necessary to ensure muscular power and great strength. The strongest, biggest, and most powerful animals in this and pre-historic times are, and were, non-flesh-eaters. The elephant, hippopotamus, rhinoceros, camel, and horse, of modern times, and the most colossal of the extinct beasts and birds of bygone times, are instances of this significant fact, and as man is but a unit of the great animal family to which we all commonly belong, it is opposed to scientific fact and altogether subversive of truth to say it is necessary to our well being that we should be and remain eaters of meat.

The custom, it is true, is prevalent enough among us, but it is a bad custom, born of unnatural cravings and fed by false beliefs, and the sooner the people learn something of the question and settle it for themselves, settle it the right way, the better it will be for the nation.

It is often contended that if meat-eating be inherently wrong, why did the people of ancient times, notably the Israelites, eat it; and as it is well-known that this people were generally addicted to the practice, why should we be expected to abstain from it?

The reason is evident and may be found in the vast difference between the economic conditions which environed the life of the ancient Israelites and that of the British race of to-day.

The Israelites were essentially a nomadic people moving about the country with their flocks and herds. For many centuries they practically had no fixed abode, and the cultivation of crops, as we understand it to-day, was impossible and never formed part of the economic conditions under which they lived. Their flocks and herds naturally provided their food; it was practically their chief source of supply, and they had to rely on it nolens volens.

Later on, after many centuries of wandering, they began to build towns and settle down in them. These permanent habitations afforded them means of cultivating the soil, and it is conceivable that in time the fruits of the earth became fairly plentiful and formed part of their diet, but the habit of centuries was upon them, it was ingrained in their nature, and they could not throw it off; perhaps they had no desire to throw it off; perhaps there were no reformers in those days, no great scientists to probe the depths of food-values, and lay bare to public gaze the dangers that lurked therein. But, be this as it may, we know the result. We know that the Israelites contrived somehow during their period of wanderings to lay up for themselves a store of terrible diseases that caused the race infinite pain and suffering. Leprosy in its worst and most deadly form was common. Plague swept away its thousands. Skin diseases of horrible kinds were rife, suffering and illness in many shapes and forms were well known to the race, and the old lawgivers and rulers of the people saw the necessity, as pointed out elsewhere, of drawing up that elaborate code of

laws and regulations in respect of general hygiene which may be found in the Pentateuch.

But whatever the old Israelites may have suffered from, whatever may have been their errors, failings, weaknesses; their perverted tastes in respect to food, their lusting after the flesh-pots of Egypt, they might always plead necessity.

In the old, old days after the Exodus, when they were wanderers on the face of the earth, they had no choice of food, it was the food supplied by their flocks and herds which they carried with them, and the produce thereof, or starvation. The flesh of animals, and such fish as they were able to take from the rivers and other waters, necessarily formed their only food, and they had to eat it in self preservation or die of starvation. Small blame to them if, under such inelastic conditions, they ate of such food as was unsuitable to man, or not of a kind that could best ensure the most satisfactory results in respect to health and strength and longevity. They suffered from many terrible diseases during their lives, and died at a comparatively early age. The cause is not far to seek.

But whatever may be said in extenuation of the Israelitish habit of meat-eating on the score of necessity, similar extenuation cannot possibly be offered on behalf of the British race of today. Our food markets are liberally supplied from local sources, and from all parts of the world with astonishing facility, plentiful supplies of



cereals, vegetables, fruits, and nuts of all kinds are readily obtainable; milk, butter, and cheese are to be had everywhere. Scores of manufactured foods of excellent quality and richly nutrient are to be found in almost every provision shop in the kingdom, and in short, there is any

amount of good, body-building, strengthening, life-giving food, apart from flesh-food, to be had everywhere.

With such a wide choice of foods at our disposal, of foods, be it noted, that are far richer in body and strength-making properties than any form of flesh food is or can be, it is obviously our own fault if we go wrong; entirely our own fault—other things being equal—if we break down and go under in the battle of life.

We are prone enough to bewail our fate on the score of heredity, and in this we more frequently than not do injustice to our progenitors. We are ready enough to believe that what we suffer from in many cases is transmitted rather than contracted, and in this we indulge in a feeling of self-pity that soothes and, in a measure, consoles us.

Most of us, who suffer at all, believe that our pains and aches are due more to the excesses of our forefathers than to our own independent indulgences in the good things of this life, and the belief robs us of remorse and regret for our own misdeeds, "My grandfather was a three-bottle man, and my dear old dad was no mean hand at the claret, so I suppose I am suffering from their indulgences," is a saying that is found in the mouth of many a "good liver" when illness has pulled him up short. Prone enough is he to hark back to his forbears for a cause, but little given is he to seek in himself the reason of his being stricken down.

As a matter of fact heredity has very little to do with the matter. There are cases of transmitted disease here and there, and when they are found they are generally so well marked as to leave no doubt as to their origin. But with the great mass of the people it is different: they are born into the world healthy enough and cannot find a stone to fling at their progenitors on the score of hereditary taint, at all events.

If there is a taint it is generally of so slight a nature that could easily be eradicated or neutralised by a little wholesome living, but what man among us ever thinks of looking at the matter from this point of view?

Take the man with a gouty taint, for example, does he ever attempt to eradicate it by a simple course of living? Does he ever study cause and effect and apply the result of his researches to



life and a merry one," then we can have it, and have with it the consequences of our folly and mad infatuation.

There is yet another aspect of the question which rarely strikes an ordinary observer, and that is, the extreme selfishness of the man who elects to go his own way because he can't be bothered about what he calls "fads and so called cures."

His own way leads him to weaknesses, illness, and to many kinds of diseases; he "ails" a good deal, and his health is considered unsatisfactory and uncertain; he becomes more or less of an invalid; he frequently breaks down, and requires the care and sick-room attendance of his family and friends; he has to remain away from his work a good deal, and is sent to the seaside or other places to recruit, and if he happens to be a man of but moderate means the family finances become seriously embarrassed.

He thus becomes a source of grave anxiety and a burden to his wife and children, and a gloom is cast over them; their individual lives are frequently overshadowed and influenced by his more or less invalid condition, and their careers are often warped and even blighted by his self-sought misfortunes.

Now if it has to be admitted that a man has a perfect right to do what he likes with his own life, it does not follow that he has any right to do what held so with other people's. If a man marries and has children, he has no right to make them me table and exercise a malign influence over their lines by the fally and self-indulgence of his own; but this is exectly what he does by yielding to his can inclinations, and by having his "good time" with the good things of this life.

It is well within his power to regulate his life, by learning a little wisdom from the teaching of others, so that it may produce the maximum of good and the minimum of ceil, and safeguard him at the same time against the growth and development of that disease-germ, if he happens to have an heriditary taint, which he knows his progenitors planted in his system. But it does not suit him to do so; he "plays for a fall," but in falling he brings others down with him, and in so doing he does these innocent and irresponsible ones unpardonable, irreparable wrong.

Then a man of this type, with his everlasting aches and pams, his rheumatic joints and his gouty knuckles, his medicated baths, his washingsout at Homburg or elsewhere, and his grumpy temper, is an unmitigated nuisance to his friends and acquaintances, and although some tolerate him, all vote him a bore and have scant sympathy for him because they know pretty well that his bodily ills are self sought.

That a man of this description is exceedingly selfish there can be no question, and the most

that can be said in his favour is that he may err rather from ignorance than by intent, but in effect there is no difference, others suffer from his selfishness, and that is enough.

But it may be justly questioned if, under our ordinary social environments, a man really has the right to do what he likes with his own life if the way he takes to enforce his right is offensive to other people. If a man blows his brains out on his neighbour's doorstep he makes a mess, which is offensive to other people, and causes considerable commotion, which is a nuisance to the community. Similarly, if a man leads a life that brings sorrow, harm and loss to the members of his own family, he commits an offence against the community, and the fact of its being a section of the community that cannot well resent it does not and cannot palliate the offence.

No man should be a nuisance to the community, nor to his friends and relations, and if he is so because he considers he has a right to do it, he does that which is eminently selfish and he therefore deserves neither our pity nor sympathy.

Another cause that largely contributes to the retardation of rationalism in our domestic habits and customs is the extreme conservatism of the British people. We are confronted with it at every turn, in all our universities, schools, institutions, politics, business and social customs do we find it, and it is so ingrained in the race as

to form a veritable barrier against reforms. It is of course due to our insular position. The great facilities offered for visiting foreign countries, and the enormous number of people that travel nowadays compared with fifty years ago, have done much to break down many of our insular prejudices, but conservatism in many regrettable forms is still with us, and until people can be brought to understand that conservatism may amount to obstinacy, and that obstinacy may lead to many dire results, reform is well nigh hopeless.

Explain for instance to a woman that flesh foods are not really so nutritious as so many non-flesh foods are, and that they cannot therefore be indispensable to our bodily health and strength, and she simply turns a deaf ear to your teaching; not one in a hundred will believe you; she doesn't profess to know better than you; she won't argue the point because she has no basis for argument, but she won't follow you; she won't believe and she won't reform.

Woman's Opportunity. Yet it is from woman that first aid should come. The question of food supply is hers to deal with, and it is she who should obviously be well up in the subject. Hers is the duty to wisely select and skilfully prepare the foods necessary for the nutrition and general well-being of her family, so that the bread-winners, among others, may be properly equipped for

the battle of life. The health and strength nay, the very life of her husband, sons and daughters, depend upon the wisdom of her choice of food products and the skill with which she prepares them, and hers is, no doubt, a position of grave responsibility. Her obligations are many, and her duties onerous; she may be regarded indeed as the trusted custodian of valuable lives, and yet she invariably betrays that trust and lamentably fails in her duty all round. She fails to recognize her many obligations, or to understand what is expected of her, what she is really answerable for and she errs in all this chiefly through ignorance.

Women are generally more conservative than men, and enlightenment and progress, as a rule, come first from the latter. But if women cannot lead they might follow, and this is just what they do not do, at least in respect to the matter we are considering. Many men have been struck by the irrationality of the present system of feeding, and after studying the question have considerably modified their menus, much to their benefit, but woman rarely sees the necessity of doing anything of the kind. The present system of eating and drinking is quite good enough for her; she has been accustomed to it all her life through, it offers many enjoyments and satisfies many pleasures;

it has many attractive features, and she sees no necessity for changing it.

Or her conservatism may take the view that there is really nothing in this food reform question, that it is merely a propaganda of cranks and faddists, and that she, at all events, is not going to listen to them, and she doesn't. She shuts her eyes to facts; she won't listen to reason; the trumpet voice of Truth never reaches her ears; she ignores the teachings of Science, and she goes on slowly poisoning herself and all those dependant on her all the days of her life.

Conservatism of this nature develops into obstinacy, an obstinacy that is not only weak and foolish, but cruel and well-nigh criminal; but she is unaware of this; ignorance blinds her, and so, poor soul, she goes on her way dealing out irremediable mischief and cruelly wronging those whom she dearly loves and for whom she would make any sacrifice.

We have mentioned in a former chapter the ignorance both of the working classes and the well-to-do classes on the subject of food values, and we have seen that in all conditions of life the household management fails lamentably in selecting the dietary which will maintain life at its highest standard of health and efficiency. Generally speaking, it is the housewife who is to blame, as the responsibility of choosing and

preparing the food rests with her, and until she can be brought to realize how very grave these responsibilities are, progress must of necessity be slow. The maitresse de maison reigns dominant, and rarely has any other member of the family the slightest influence in the selection of food or its preparation. The breakfast-bacon or dinnerjoint, or some other pièce de résistance of a similar nature, whether at the private family or boarding house table, are practically the only resources at the good lady's command, and although many a member of her family, or others for whom she caters, may have altogether different ideas on the subject, and be profoundly impressed with the necessity of a pretty general food reform, they find themselves quite powerless in the matter.

In the meantime, tens of thousands of young people of both sexes are victims of circumstances over which they have little or no control. They are either obliged to join the family board, or if they find employment in our big cities, as so many of them do, they are constrained to seek quarters in the lodging house, or in boarding establishments where the profoundest ignorance of food values prevails. Most of them, therefore, find it very difficult to adopt a rational system of feeding, or to relinquish the family or boarding house table for one supplied solely from their own catering, and according to their own ideas; and they continue to remain victims of domestic

ignorance which has done much to break down the strength and vigour of the British people.

This only serves to emphasize the necessity there is for the enlightenment of all those upon whom devolves the responsibility of furnishing the table for the breadwinners of the household, and for many a worker whose very existence depends on the preservation of health, and the maintenance of that degree of strength and bodily fitness which a more careful attention to the rationale of diet would certainly ensure.

Throughout this little work no attempt has been made to approach this subject from any but the most practical, common sense point of view. It is beyond doubt that by far the largest section of the community fail to reach even a fair standard of health and enjoyment of life simply through an ignorant and irrational system of eating and drinking. It is also manifest that ignorance in this direction prevails to an extent that calls for immediate and widespread enlightenment, and the matter-of-fact, hygienic aspect of the case has therefore been purposely kept in view.

Humane and Spiritual Arguments. There is, however, a higher, nobler, wider view of this all-important question, beside which the purely hygienic aspect may appear elementary, and even selfish. Those

advanced thinkers who further consider the matter from an altruistic, humane, and spiritual standpoint and who in fact prefer to regard it from that point of view, will find much to enlighten them in the copious literature on the subject issued under the auspices of The Order of the Golden Age.

Widespread, wanton cruelty is dealt out to millions of God's sentient creatures daily to satisfy the false, unnatural, and harmful craving for flesh-food, and alas, that it should be so, but it must be confessed that this wholesale slaughter is carried out chiefly to supply the British people with a form of food that has done more than anything else to bring about that physical degeneration which has become a question for public enquiry. Other nations partake more sparingly of animal food, as has been before pointed out.

These discursive remarks may be closed by a further and more specific reference to the many ills from which mankind suffers through imprudence in the choice of food, both meat and drink; and we shall see that a great deal of disease and suffering is preventible, many ailments, indeed, being perfectly under the control of the sufferer. Dr. Haig conclusively proves that about eighty of the maladies that afflict us are not diseases at all, but merely the result of one and the same cause, uric acid poisoning. He clearly shows that this slow but deadly poison is swallowed daily in our food and drink, and specifies in what foods the poison is found,

and the quantity contained in each. He divides these so-called diseases, arising from this poison, into two great groups, forming, as he says, a "terrible plague of words," which it would be useless to recapitulate here; but which, we may mention, consists of a set of maladies so varied as to include gout, rheumatism, liver abscess, appendicitis, neuralgia, dyspepsia, Bright's disease, gravel and calculus, headache, insomnia, anæmia, and others far too numerous to mention.

We may as well divide ourselves into two groups:—

- A. Those who do not care to profit by what we read.
- B. Those who do.

For the first of these groups nothing can be said; effort is vain, they must go on to the end of their journey carrying their troubles with them all through life.

The latter group, however, benefiting by what they learn, may relieve themselves of practically all their bodily troubles, and enter upon a phase of life wherein will be found abundant health and strength, and that bright joyous exhilaration and splendid healthy optimism which they lost years ago, or rather left behind in their youth and early manhood or womanhood. Life to such will be found to be worth living, and what is better still, it will be lived profitably and well.

In the determination of this question, however, as in everything else in life, we should be guided by that supreme regulator, good, sound, common-sense. Science tells us very plainly that there is wear and tear of tissue going on every hour of our lives, and that, unless this waste be made good by the intake of suitable nourishment, we die. We know what this nutriment consists of, and we know where it is to be found, and all then that is necessary is to devote a little time to the study of the question.

And thus by constituting himself an objectlesson help to spread abroad truth concerning this matter.

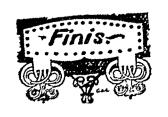


TABLE OF FOOD VALUES.

Appendix and the	ست يه پورې سن د پورې د د د د د د د د د د د د د د د د د د د	PERCENTAGE OF					
	a gala a san aga maga man aga an aga san aga s	W.1**	l'estout	Lat	Starili Muter or wall	Min'r il Matter	Natur Mater ment
rlesu roods.	Lean Boof	71'0 65'3 39 0 75'7 67'4	17.0 11.5 9.8	6.68 48.0 10,2	;	0.8 2.3 1.1 1.37	31.8
EGGS.		75'0				1.3 1.2	•
MILK and MILK- PRODUCTS.	Milk (Cow's) Cream (Devonshire) Cheese (Cheddar)		4.0	31.1 62.0 3.0	* 1		64.0 66.4 11.0
CEREALS and FARINACEOUS FOODS.	Wheatmeal (Entire) Do. (Flour only) Cornflour Oatmeal Barley Bran Rice Macaroni Sago, Tapioca and Arrowroot		93 15.6 6.7 16.4 7.8 11.7	1.2 5.0 6.11 1.3 3.5 4	73.6 66 5 63 6 75.5 43 6 79.0	3.0 3.0	82 8 89 1 84 6 69 5 87 6 89 2
BREAD FOODS.		44*45	6·5 5'7	1.18	44.8 51.2 62.58 43.55 42.34	1.0	70°67 15 84

### TABLE OF FOOD VALUES

(Continued).

-	Balantingan, any saoran'i Andrew Stewart and Stewart and Stewart and Stewart and Stewart and Stewart and Stewart	PERCLN FAGE OF					
* 1		Water	Protein	Fat.	Starch Matter or Sugar	Min'ral Matter	Total Nutri- ment
LEGUMES.	Haricots (White) Lentils Peas (Dried) Peas (Green) Pea Soup Pea Flour Pea Nuts	9°9 12°3 8°3 81°8 84°26 14°3 6°5	25.9 23.8 3.4 3.38 22.4	2.8 1.9 2.1 4 0.93 2.5 46.2	#	3°2 3°0 2°1 7  3°0 3°3	87.2 83.0 86.7 18.2 4.31 79.2 79.6
vegetables.	Carrots Turnips Cauliflower (Head) Leeks Potatoes Mushrooms Tomatoes Do. (cooked)	86.5 90.3 90.8 91.8 75.0 90.3 91.9	.9 2.2 1.2 2.2 4.3	3 15 4 5 2 3 2	4.7 5.8 21.0 3.7	9887 1014 76	11.8 6.85 8.1 8.2 24.4 9.7 7.2 2.06
fresh fruits.	Bananas Apples Grapes Strawberries	20.0	1.3	·8 ·5 · · ·7	16.6 17.7	1.0 .4 .5 .6	25'9 18'0 21'2 9'1
DRIED FRUITS.	Raisins Figs	26.4	6.1	4.7 .9 .8		4°1 2°3 1°5 1°6	86.0 75.2 73.6 73.7
NUTS.	Chestnuts Walnuts Filberts Brazil Nuts Cocoanuts Pine Kernels Almonds	44.5	15.8 18.4 16.4 5.5 9.2	57.4 28.5 67.7 36.0 71.5	13.0 11.1 6.6 8.1 14.0	1,0	89.3 88.2 59.5 94.0 50.5 95.0 87.3

# धी खरतरगन्दीग ज्ञान मन्दिर, जयपुर

All Workers for the aplitment and amelioration of Manland, are invited to obtain from a Newsagent or Bookstall

## "The Herald of the Golden Age"

The Ograpal Journal of The Order of the Golden Adult

A Magazine founded to problaim a Mussage of Peace and Happiness, Health and Purity, Life and Power.

Illustrated Quarterly, Price Threeponce
Edited by Sidney II Bland.

- It advocates Physical, Mental, and Spiritual Culture in a practical and helpful manner.
- It exalts the true Ideals of Christianity.
- It pleads for recognition of the rights of Animals, and the adoption of a Natural, Hygienic, and Humane Diet.
- It circulates in Forty Countries and Colonies.
- It will be forwarded direct from the Publishing Offices for One Shilling and Sixpence per annum, upon application to

The Secretary, The Order of the Golden Age, Paignton, England.

(Specimen copies, Threepence, post free.)

中 中 中

LONDON AGENTS:

W. R. RUSSELL & Co., 5a, Paternoster Row, E.C.

### Booklets and Pamphlets

PUBLISHED BY

### THE ORDER OF THE GOLDEN AGE,

PAIGNTON, ENGLAND.

### "Is Flesh-Eating Morally Defensible?"

By SIDNEY H. BEARD.

Seventh Edition. Thirty-fifth Thousand. Threepence, post free.

'The Testimony of Science in Favour of Natural and Humane Diet."

By Sidney H. Beard. Fifteenth Thousand. Price One Penny.

"The Blood Tribute of Christendom."
By SIDNEY II. BEARD. Price One Penny.

"The Coming Revival of Spiritual Religion."
By Sidney II. Beard. Price One Penny.

"Essays of the Golden Age."
By Dr. Josian Oldfirld, DCL., M.A., MR.CS.
Sixpence Net, post free.

"The Penny Guide to Fruitarian Diet and Cookery."

By DR. JOSIAH OLDFIELD. Fortieth Thousand.

"A Tale of Shame."

By Dr. Josiah Oldfield. Price One Penny.

"The Way to Health and Happiness."
By Francis S. Blizard. Price One Penny.

"The True Significance of Food Reform."
By FRANCIS S. BLIZARD Price One Penny.

"Practical Metaphysics."
By Grace M. Brown. Price One Penny.

"Art in Daily Life."

By ERNEST NEWLANDSMITH. A.R A.M. Price One Penny.

A thoughter there who do by to less a Hundred Ve tracwhich shows how to and to dates in that and the surrained which results from them

#### A COMPREHENSIVE

# IDE-BOOK

### TO NATURAL, HYGICNIC AND HUMANE DIET,

BY SIDNEY H. REARD.

Identified Price One Shilling Not. In Art Cant c. Eighteenpence Not. Post Prec

Most than 27.20 copies of this book have already been resided from the Press in 150 flood and America. The sale steadily increases

It is being freely pure weed by dectors, teachers of physical eniture, and leaders of thought in religious and food reform circles in all parts of the world.

Most persons also buy this book send for additional copies for their firefats.

It contains a number of original and copyright recipes, together with a large an ount of he plul information concerning fruitarian and vegetarian die, hypienie living, artifice conkery and tood values

In its pages will be found full particulars concerning fruitarian specialities, scientife nut products and toods, manufacturers of all requisites in connection with hygicile dictary, vegetarian restaurants, etc.

It is artistically bound to linen covers and is likely to commend itself as a gift-book apart from being a useful vade mecuns to all housewives

#### A FEW PRESS OPINIONS.

"A Guide-Book that we beartily recommend to all who desire cleaner more wholesome and simpler food M my of our friends would fain abandon flesh meats but know not the value of fruits, nuts and vegetables. The author comes to the assistance of the tood reformer and renders good service thereby "—New Age

"The book should be useful to Vegetarians and Meat-exters alike "-Rock

"The introductory chapters of this Guide-Book are quite enlightening. The bulk of the book, however, consists of practical recipes for a simple style of living which is not only rational but pleasant and appetising-besides being hum ine. The whole deserves the attention of all who wish to make life worth living "—Hereford Times

"There is not a dull chapter in the whole book."—Stirling Journal

"The whole work is a valuable help in the correct understanding of the dieting of the human body. It is written with a freedom from faddisinan evil that so often enters into and checks, in parasitical fashion, the growth of a new movement. There is shrewd common sense, a practical grasp of the subject and a choice of only those arguments endorsed by scientific research '-Torquay Times

"Food Reformers and those thinking of adopting a more humane diet, would do well to obtain this book. It is full of useful information"-

Montreal Daily Herald.

### Some DEPÔTS for the Supply of

# Hygienic Foods and Specialities.

The Pitman Health Food Stores,
17, Corporation St., Birmingham.

Heard's Stores, Chelston, Torquay.

Frederick Bax & Son,

35, Bishopsgate St. Without, London, E.C.

Chapman's Health Food Stores,

Eberle St., Liverpool.

East London Pure Food Depot,

13, East India Dock Road.

The Vytalle Oil and Food Co.

145, County Terrace St., London, S.E.

Richards & Co., 7B, Dundas St., Edinburgh.

The International Health Association,

74, Legge St., Birmingham.

T. Bilson & Co., 88, Gray's Inn Road, London, W.C.

The London Nut Food Co.,

465, Battersea Park Road, London.

The 'Odin' Company,

Invicta Works, Bow Common Lane, London, E.

Hugh Mapleton,

2, Dolphin St., Ardwick Green, Manchester.

W. H. Webb, 4 & 6, Tulketh St., Southport.

Loders & Nucoline, Ltd.,

Cairn Mills, Silvertown, London, E

Leyson, Harand & Co., Upper Hulton St., Manchester.

# Some STANDARD WORKS on the Subject of Food Reform.

### "The Living Temple."

By Dr. J. H. Kriticko, Make if Director of the Partle Crick Santamin. except I all. Ill. arried with many plates. Price 6. food free.

### "Strength and Diet,"

A Praemal Treatise with special regard to the Life of National By Henri Rotte Revisit Lindopp. Pence is timely folloge tide.

"Uric Acid as a Factor in the Causation of Disease."
By Army Hair, M.D., E.R.C.P. Peters 6 nets, postage 64

"Uric Acid: An Epitome of the Subject."

"Diet and Food in Relation to Strength and Power of Endurance."

By they me Author, Price a'n each net,

"Muscle, Brain and Diet."
By Equivage Miles, M.A. Price 3 9, post free

"A Plea for a Simpler Life."
By Gronol S. Krith, M.D., LL.D., F.R.C.P.

" The Perfect Way in Diet."
By ANNA KINGSFORD, M.D. Price 1 2 net, post free

"Vegetarian and Simple Diet."
By COLONEL A R KENNEY-HERPLRT. Price 3'9 net, post free

"The Food of the Future."
By C W. FORWARD. Price 1/2 net, fost free

The above books and any information on the subject can be obtained on application to the Secretary,

The Order of the Golden Age, Paignton, Devon

### THE TEMPLE OF ART

A PLEA FOR THE HIGHER REALISATION OF THE ARTISTIC VOCATION.

#### By ERNEST NEWLANDSMITH

(Associate of the Royal Academy of Musica and Director the British Musical Society)

Crown 8vo, Art Linen, Second Edition, Price 3/6 Net (post free).

#### Contents:

I. The Artist's Calling.—II. The Spirit of True Art.—III. The Source of True Art.—IV. The Soul of Art.—V. The Failure to attain the Ideal.—VI. The Esteem of the World.—VII. The True Minstrel.—VIII. Art in Daily Life.

Few people realise what a far reaching and subtle influence the Art of the day inevitably exercises on their lives and characters—an influence that often affects them quite unperceived—for good or evil

Her most Gracious Majesty the Queen has been reading "The Temple of Art" to H.R.H. the Princess Victoria during her convalesence; the leading newspapers have widely recommended it; and II R.H. the Princess Frederica of Hanover, Great Britain and Ireland, expressed her sincere pleasure by presenting the Author with an inscribed copy of a book written by her late father, the King of Hanover.

#### A Few Press Opinions.

'The Temple of Art,' by Ernest Newlandsmith, can only be described as a beautiful and highly instructive volume. If all artists, in every medium, were to work upon Mr. Newlandsmith's lofty conception of their responsibility, the effect would be a revolution in the artistic world of England.

Sussex Daily News, Nov. 10th, 1901.

The Order of the Golden Age, Paignton, England.

### The Order of the Golden Age.

Monte, other and system Raignana, England.

in, was maney it, its ear.

#### CLUMUOT

agen, in a property of a property of a serial less And to the property desired and and a compact of the serial serial less and a serial serial

है कि है के प्रकार पा जिल्ला कर का कार के दिन को का का का कि के कि का कि का की का कि का कि का की का कि का कि क जान को के जा कि का की का की का का का की का का की का का का का का का का का का क

- the term of the second of a second appears to the first them which is a second of the second of the
- and the second of the second s

The early or that the in we want in and aparticul file. I would be published as from the confidence of the confidence of

"Pup" cultive a worth residence in and type and and to depression of any set to the true spiritual Christian to

"The Northern or The University predict to such the attainment of these objects to daily example and personal influence. Frey are divided into two classes Companions and Associates, the former being abstances from them, footune Linux field, the latter free thesh and footunity.

The work of The Order is maintained by voluntary contributions from its. Men vers and Pries ds. All services randored by Manbers, whether literary, editorial, alminotrative, or on the platform, are rendered granutously.

The Minimum Annual but her prior to have buildings and bixpence, which entitles each Manifest to receive a Legy of the Califold Journal and for all Panighlets and Lordon, which are published.

A Copy of the Prospectus and Rules, and a Form of Application for Membership will be formarised if requested, together with any information that may be desired.

The Report of Income and Expenditure (duly audited) will also be supplied gratis upon application to the Secretary.